

REMARKS

In the Office Action, claims 1-7, 9-15 and 17-29 were rejected. Claims 1-7, 9-15 and 17-29 remain currently pending. In view of the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Rejections Under 35 U.S.C. §101

In the Office Action, the Examiner rejected claims 26-29 under 35 U.S.C. §101 as directed to non-statutory subject matter. Specifically, regarding claims 26 and 27, the Examiner stated, “These claims are still not statutory because they are merely data not a data structure or a computer program.” Office Action, p. 2. Claims 26 and 27 recite a “computer storage medium storing therein a computer program for processing image data comprising machine readable code . . . for carrying out routines.” (Emphasis added). The claims specifically recite storing a computer program. The claims, therefore, are directed to a computer program stored on a storage medium and consequently fit within the statutory subject matter. Indeed, the additional recitations of claims 26 and 27 further clarify that what is stored on the computer storage medium is machine readable code for carrying out specific routines, as opposed to mere data. In view of these clear recitations, the Applicants believe that the present rejection is baseless and request that the Examiner withdraw the present rejection or provide some explanation as to why the Examiner believes that the present formulation of the claims is directed to mere data as opposed to what they appear to explicitly recite.

With respect to claims 28 and 29, Examiner stated that they “claim an image which is merely data and therefore has no functional relationship.” Office Action, p. 4. Claims 28 and 29 recite, “A computer memory device storing an image” (Emphasis added). These claims are directed toward a device, they are not merely directed toward data, such as an image, as asserted by the Examiner. For at least these reasons among others, Applicants respectfully request withdrawal of these rejections under 35 U.S.C. § 101. Absent such a withdrawal, the Applicants request an explanation from the Examiner of the justification for ignoring the recited “computer

memory device” language of claims 28 and 29, which appears to run contrary to the Examiner’s stated rationale for the rejection.

Rejections Under 35 U.S.C. §102

In the Office Action, the Examiner rejected claims 1-7, 9-15, and 17-29 under 35 U.S.C. §102(b) as anticipated by Fan et al. (U.S. Patent Pub. 2002/0093686) (hereinafter “Fan reference”). Applicants respectfully traverse this rejection.

Legal Precedent and Guidelines

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the identical invention “in as complete detail as contained in the . . . claim” to support a prima facie case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

The cited reference is missing features recited by independent claims 1, 24, and 26.

Turning to the claims, the present independent claims 1, 24, and 26 recite, respectively, a method, a system, and a computer storage medium storing a computer program for processing image data. All three claims recite “identifying a first group of pixels exhibiting a first characteristic . . . identifying a second group of pixels exhibiting a second characteristic [and] identifying a third group of pixels exhibiting the first and second characteristics.” The first and second characteristics are further defined as corresponding to structure and non-structure in the image data. Independent claims 1, 24, and 26 further recite “processing the first group of pixels in accordance with at least a first operation; processing the second group of pixels in accordance with

at least a second operation; processing the third group of pixels in accordance with the at least first and second operations.”

The Fan reference does not appear to teach “identifying a first group of pixels exhibiting a first characteristic . . . identifying a second group of pixels exhibiting a second characteristic [and] identifying a third group of pixels exhibiting the first and second characteristics,” as recited by independent claims 1, 24, and 26. In contrast, the Fan reference appears to disclose descreening a half-tone image on a pixel-by-pixel basis. *See* Fan, p. 2, para. 20. Every pixel is then low pass filtered and separately notch filtered. *See Id.* A local contrast variable, ranging from 0 to 1, is then determined for each pixel value. *See Id.* The value of the local contrast variable corresponds to high contrast, low contrast, or contrast anywhere in between. *See* Fan, p. 2, para. 26. The Applicants understand the Examiner’s position to be that a moderate contrast level is present when a pixel exhibits both high and low contrast, i.e., what the Examiner equates with the first and second characteristics. Final Office Action, p. 5.

Such an assertion is specious at best. For example, one would not consider a light bulb emitting a moderate amount of light to be emitting both dim and bright light or a piece of cheese having a moderate amount of fat to be both fatty and fat-free. Likewise, one would not consider person of average height to be both tall and short. Further, the Applicant’s respectfully assert that one of ordinary skill in the art would not read the disclosure of the Fan reference and believe that the disclosure of pixels having moderate local contrast to be pixels exhibiting both high and low contrast, as the Examiner’s rationale would appear to require.

Accordingly, Applicants assert that one of ordinary skill in the art would find that a moderate contrast value is not simply a combination of low contrast and high contrast characteristics, it is a value that represents a separate characteristic, one that falls in between high and low contrast, which is neither high nor low. In other words, the Fan reference appears to disclose a method used to process all pixels in the half tone image, assigning a value to the pixel

based on where it falls in the range of contrasts – not a method that identifies three separate groups of pixels based on whether the pixel exhibits structure, non-structure, or both structure and non-structure characteristics. In view of these deficiencies among others, the cited reference cannot anticipate independent claims 1, 24, and 26 or their dependent claims.

Further, the Fan reference does not appear to teach the acts of “processing the first group of pixels in accordance with at least a first operation; processing the second group of pixels in accordance with at least a second operation; processing the third group of pixels in accordance with the at least first and second operations,” as recited by independent claims 1, 24, and 26. In contrast, the cited reference appears to disclose performing the same operation on all input pixel values, i.e., performing a low pass and notch filter and weighting the filter values based on the local contrast value. See Fan p. 2, para. 20, 24. In other words, the Fan reference appears to disclose a method that performs one process on all pixels – not a method that has distinct operations performed exclusively on at least two of the groups of pixels. In view of these deficiencies among others, the cited reference cannot anticipate independent claim 1, 24, and 26 or their dependent claims.

The cited reference is missing features recited by independent claims 11, 25, and 27.

The present independent claims 11, 25, and 27 recite, respectively, a method, a system, and a computer storage medium storing computer a program for processing image data. All three claims recite, “processing the first group of pixels in accordance with at least a first operation . . . processing the second group of pixels in accordance with at least a second operation . . . processing the third group of pixels in accordance with the at least first and second operations.”

The Fan reference does not appear to teach “processing the first group of pixels in accordance with at least a first operation . . . processing the second group of pixels in accordance with at least a second operation . . . processing the third group of pixels in accordance with the at least first and second operations,” as recited by independent claims 11, 25, and 27. In contrast,

the cited reference appears to disclose performing the same process on all input pixel values, i.e., performing a low pass and a notch filter on each pixel, then combining and weighting the output filter values based on the local contrast value. See Fan p. 2, para. 20, 24. In other words, the Fan reference appears to disclose a method that performs one process on all pixels – not a method that has distinct operations performed exclusively at least two of the groups of pixels. In view of these deficiencies among others, the cited reference cannot anticipate independent claim 11, 25, and 27 or their dependent claims. Further, Applicants respectfully request an indication of allowance for claims 1, 11, 20, and 24-27 and the claims depending therefrom.

The cited reference is missing features recited by independent claim 20.

The Examiner also asserted that the Fan reference discloses all of the elements of claim 20. The cited reference does not disclose at least one recited feature of claim 20 and therefore cannot support a prima facie case of anticipation. For example, claim 20 recites a system for processing image data that includes separating pixel data into three groups corresponding to structures, non-structures, and an overlapping group of structures and non-structures. The Examiner rejected claim 20 based on the same paragraph 26 relied upon in the rejection of claims 1, 11, and 24-27. As stated above, the Fan reference appears to disclose a method that performs one process on all pixels, not separate processes for different groups exhibiting different characteristics. For at least the reasons set forth in the remarks regarding the rejection of claims 1, 11, and 24-27 the analysis advanced by the Examiner regarding claim 20 does not appear to be supported by the reference.

Means-plus-function language must be evaluated in accordance with 35 U.S.C. §112, sixth paragraph.

Applicants respectfully note that claims 24 and 25, which were rejected under 35 U.S.C. §102(b) in view of the Fan reference, include means-plus-function language, as set forth in 35 U.S.C. §112, paragraph 6, and should be examined in accordance with this body of law. As may be appreciated, with respect to 35 U.S.C. §112, paragraph 6, an Examiner “may not disregard the structure disclosed in the specification corresponding to such language when rendering a

patentability determination.” *In re Donaldson Co.*, 29 U.S.P.Q.2d 1845 (Fed. Cir. 1994); *see also* Manual of Patent Examining Procedure § 2181. Applicants note that proper interpretation of this claim must be performed with reference to the structure provided in the specification. Particularly, with regard to the “means for identifying a [] group of pixels [and] means for processing the [] group of pixels” recitation of claims 24 and 25, Applicants’ specification discloses analysis of pixel intensity and FUSION processing, respectively, for performing the recited functions. *See, e.g.*, Application, p. 6, line 4 – p. 7, line 13. Applicants respectfully note that the cited reference appears to fail to teach or suggest such structure. Accordingly, the Office Action failed to establish a *prima facie* case of unpatentability in accordance with the relevant statutory and precedential authority outlined above. Applicants respectfully submit that independent claims 24 and 25 are patentable over the cited reference for at least these reasons.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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